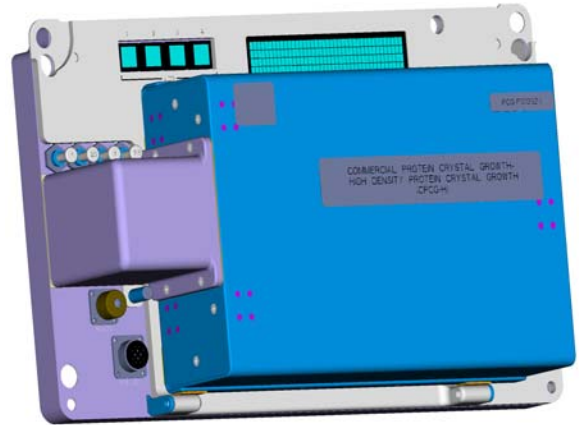


Lessons Learned – CRIM Payload

Brief History:

The Commercial Refrigeration Incubation Module (CRIM) is an Express Rack payload. This unit maintains and monitors the CPCG, or Commercial Protein Crystal Growth. The purpose of the research is to use the microgravity environment to grow large, high quality crystals of proteins and other macromolecules for use in postflight x-ray diffraction studies. This structural information may lead to greater understanding of various diseases and design of new treatments.



The muffler is made using formed Aluminum and sealed shut with gasket material. The inside is lined with Melamine foam, taking away the sound's direct path out. The anticipated results are shown below:

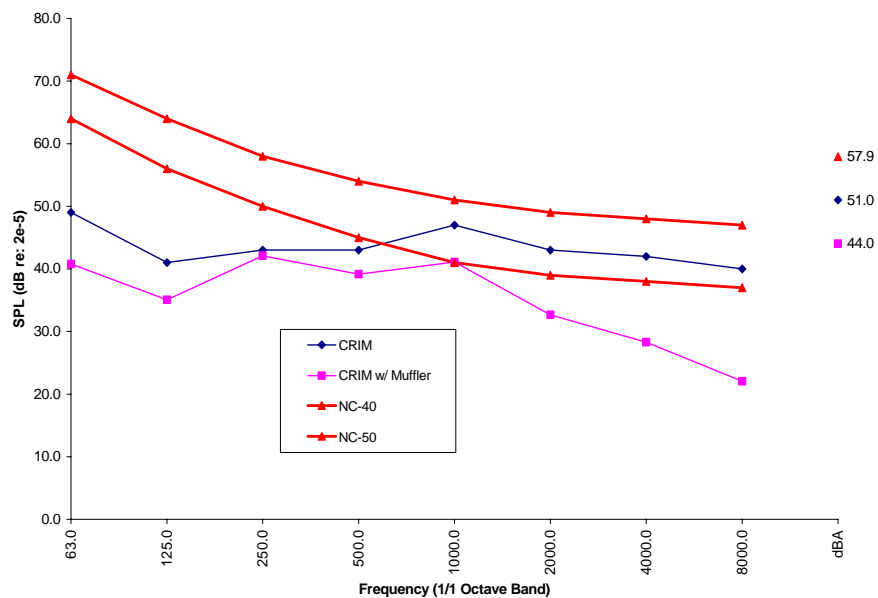


Figure 1: Anticipated CRIM Results

There is an overall anticipated decrease of 7 dBA. The CRIM would now meet its NC-40 criteria.